JACC: CARDIOVASCULAR INTERVENTIONS
VOL. 7, NO. 12, 2014

ISSN 1936-8798/$36.00
PUBLISHED BY ELSEVIER INC.
http://dx.doi.org/10.1016/j.jcin.2014.06.021

IMAGES IN INTERVENTION

Percutaneous Treatment of Chronic Distal Aortic Occlusion

A Viable Option

Mohamad Alkhouli, MD, Irfan Shafi, MD, Pravin Patil, MD, Riyaz Bashir, MB BS

A 55-year-old woman presented with severe lifestyle-limiting bilateral calf and thigh claudication (Rutherford stage III). She had history of aortobifemoral bypass 13 years ago, which had occluded since then. Her ankle brachial index (ABI) was 0.67 on the right and 0.69 on the left. Computed tomography (CT) and digital-subtraction angiograms showed an occluded infrarenal aorta (**Figures 1A and 2A**, Online Video 1). She was deemed to be a poor candidate for surgical revascularization secondary to her comorbidities (uncontrolled diabetes and severe coronary artery disease) and the need for redo surgery.

She was treated successfully with percutaneous bilateral kissing aortoiliac stenting using bilateral femoral and left radial approaches. The left aortoiliac occlusion was successfully traversed in a retrograde fashion from the left femoral access using a Pioneer

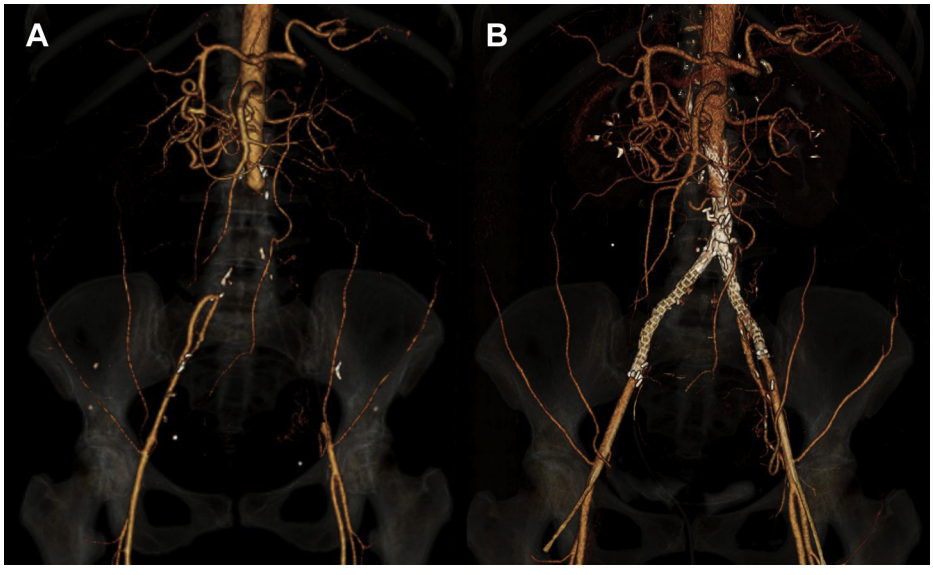

FIGURE 1 CT Angiogram 3D-Volume Rendering Reconstruction Image

(A) Occluded infrarenal aorta, with distal reconstitution (Online Video 1). **(B)** Reconstruction of the distal aorta with kissing stents (Online Video 2).

From the Department of Medicine, Division of Cardiovascular Diseases, Temple University, Philadelphia, Pennsylvania. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

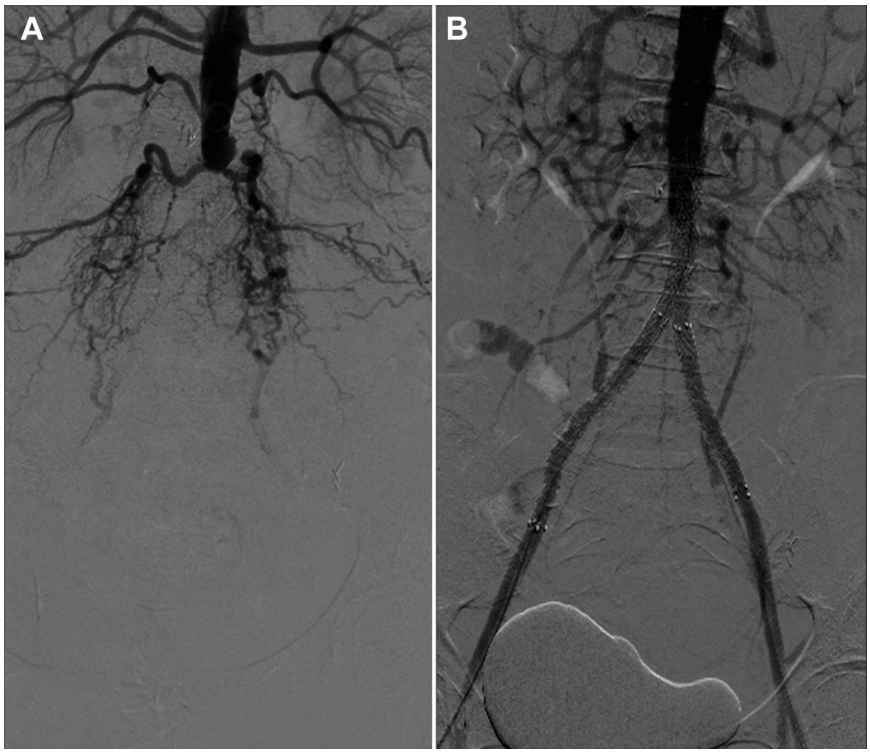

FIGURE 2 Aortoiliac Angiogram

(A) Occluded distal aorta. **(B)** Reconstruction of the aortoiliac bifurcation with kissing stents.

re-entry catheter (Volcano, San Diego, California). The right aortoiliac occlusion was traversed in an antegrade fashion from the left radial approach using an 0.018-inch Victory wire (Boston Scientific, Natick, Massachusetts) that was externalized via the right femoral sheath. The aortoiliac bifurcation was reconstructed with kissing balloon angioplasty and stenting with balloon-expandable Assurant-Cobalt stents (Medtronic, Langhorne, Pennsylvania) and self-expanding LifeStar stents (Bard Peripheral Vascular, Tempe, Arizona) with excellent angiographic and hemodynamic results (**Figures 1B and 2B**, Online Video 2). The following day, the patient was walking without any claudication and has continued to be free of symptoms at 3-month follow-up. Repeat ABIs were completely normal (1.17 on the left and 1.19 on the right side).

Surgical revascularization is considered to be the preferred treatment of infrarenal aortic occlusion (TASC-D lesion) (1). However, with current advances in percutaneous technologies such as intravascular ultrasound-guided re-entry devices, endovascular treatment seems to be a very reasonable first line approach particularly in high-risk surgical patients (2,3).

REPRINT REQUESTS AND CORRESPONDENCE: Dr. Mohamad Alkhouli, Division of Cardiovascular Diseases, Temple University School of Medicine, 3401 North Broad Street (9 PP), Philadelphia, Pennsylvania 19140. E-mail: adnanalkhouli@gmail.com.

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KEY WORDS chronic total occlusion, distal aortic occlusion, endovascular, re-entry devices

APPENDIX For supplemental videos and their legends, please see the online version of this article.